MINING APPLICATION NO. _____

Date _____

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

MINING AND RECLAMATION PLAN

(Other forms may be used in lieu of MR 2, provided they contain the same information)

1. Name of Applicant or Company Mineral Energy Inc.

2. Proposed type of operation Gold & Silver mining and milling

3. (a) Prior Land Use(s) mining and cattle grazing

   (b) Current Land Use(s) ~~mining ands cattle grazing~~

   (c) Possible or Prospective Future Land Use(s) mining and cattle grazing

4. What vegetation exists on the land proposed to be affected

   native grasses and brouse and Tamaracks

   (a) Types and Estimated Percent cover or density: 40 %

5. What is the pH range of soil before mining? 8.2 - 8.8 pH

   Name of Person or Agency and method of determining pH Soil Conservation Service

   Thymol Blue Indicator

6. Site elevation above sea level 4200

7. In case of coal, oil shale, and bituminous sandstone:

   Principal seam(s) and thickness(es) N/A

8. Estimated duration of mining operations 1.5 years

9. Has overburden, waste or rejected materials been classified as acid or alkali producing? (X) Yes ( ) No
   Does the above material being moved have any other characteristics affecting revegetation? alkali and clay content

10. Will any underground workings or aquifers be encountered? ( ) Yes (X) No
    Describe

    Is there an active discharge of water from abandoned deep mines on or crossing the land affected? ( ) Yes (X) No If yes, describe the quality of water being discharged.

11. Describe specifically a detailed procedure for:
    (a) The mining sequence
    (b) The procedure for constructing and maintaining access roads, to include a typical cross-section and a profile of the proposed road grades.
    (c) The procedure for site preparation including removing trees and brush.
    (d) The method for removing and stockpiling topsoil or disturbed materials.
    (e) The method for the placement or containment of all disturbed materials, to include the method for handling of all acid or alkali-producing and toxic materials.
    (f) A procedure for final stabilization of disturbed materials.

GRADING AND REGRADING

Specifically describe:

(a) Typical cross-section of regrading.
(b) The method of spreading topsoil or upper horizon material on the regraded area and indicate the approximate thickness of the final surfacing material.
(c) What type of soil treatment will be utilized.
(d) The method of drainage control for the final regraded area.
(e) Maximum grading slope.

TESTING

1. Describe method for testing stability of reclamation fill material.

reclamation fill materials will be the same materials that are removed from the area

Describe method for the testing of soil that is intended to support vegetation

_____

2. Describe any soil treatment employed as an aid to revegetation _____

Any treatment used will have to be determined after adequate soil information has been gathered

3. Describe surface preparation of areas intended to support vegetation:

the surface will be leveled and contoured to prevent erosion

_____

_____

REVEGETATION

1. Revegetation to be completed by:

(x) Operator
( ) Soil Conservation District
( ) Private Contractor
( ) Other (specify) _____

( ) Hydroseeding
( ) Aerial Seeding
( ) Conventional or Rangeland Dril
(x) Broadcast and Drag
( ) Other _____

2. Will Mulch be used? ( ) Yes (X) No

Type: _____ Rate/Acre _____ lbs.

3. Revegetation Plan and Schedule -

Species	Rate/ Acre	Planting Location	Facing N-S-E-W	Season to be replanted
4 wing salt brush	1 pound	T23S,R24E sec 11		fall
Gallenta grass	1 pound	"" " "		fall
Globe Mallow	1 pound	" " "		fall
Indian Rice Grass	1 pound	" " "		fall

the above combination was recomended to us by the B.L.M.

4. Will affected area be subject to livestock or wildlife grazing?

(X) Yes ( ) No Will vegetation protection be needed? _____

yes; until the grasses are well established

5. Will irrigation be used: ( ) Yes (X) No Type _____

6. Describe maintenance procedures for revegetation if needed, until surety release is granted.

reseeding if needed , fertilizer if needed

STATE OF Utah

COUNTY OF Salt Lake

I, Larry K. Perkins, having been duly sworn depose and attest that all of the representations contained in the foregoing application are true to the best of my knowledge; that I am authorized to complete and file this application on behalf of the Applicant and this application has been executed as required by law.

Signed: Larry K Perkins

Taken, subscribed and sworn to before me the undersigned authority in my said county, this 15th day of May, 19 81.

Notary Public: Douglas L. Pay

My Commission Expires: July 9, 1983

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides as follows:

> "Information relating to the location, size, or nature of the deposit and marked confidential by the operator, shall be protected as confidential information by the Board and the Division and not be a matter of public record in the absence of a written release from the operator, or until the mining operation has been terminated as provided in subsection (2) of section 40-8-21."

Is confidential information contained herein?

YES _____ (Initial)

NO _____ (Initial)

Sections desired to be maintained as confidential information -

_____ _____ _____

_____ _____ _____

_____ _____ _____

REGRADING

The rock and gravel will be placed in the bottom of the pits, and will be covered with at least two feet of processed silt or clay material.

The materials will then be leveled with the use of a bulldozer or motorgrader. Since the normal topography is nearly flat, the grading process will be minimal.

Since we are uncertain of the ability of the soils to sustain vegetation, we are currently not prepared to indicate what type of treatment will be used. Testing will be completed when enough materials are collected to give adequate results.

The maximum grading slope will be less than 5%. Back filling and regrading will be completed sixty days after mining has stopped.

Mineral Energy Inc. proposed placer mine site is located in Grand County, Utah, R24E, T23S, NW corner of Section 11. We are concerned with the mining and milling of placer gold and silver and or other precious metals deposited by the normal alluvial process of the Dolores River.

The mine and mill will process approximately 500 tons of ore per day. The operations will be classed as surface placer. All mining will be done hydraulically. Mineral Energy Inc. anticipates that from 9-11 acres will be disturbed per year in the normal mining process. Power will be produced by on-site diesel generators.

Previous testing has indicated that the minerals of interest are found in the alluvial material placed by the Dolores River. The deposits of micron gold and silver are of major concern to MEI and have been found to be most prevelant in the silts and clays deposited in the river bottoms.

The proposed mining area has previously been mined for placer gold by the Blake Mining Co. of Monticello, Utah. Approximately 9 acres of the proposed 15 acre area was disturbed by their operation, leaving numerous mounds of gravel and silt, and several large open pits.

It is felt that for all concerned parties, that we start the mining sequence on the area that has already been disturbed and thus preparing the land for reclamation as soon as possible. As soon as the above area has been mined out and reclamation has started, operations will be shifted to the portions of the property that have not previously been disturbed.

The mine site has a relatively level topography with a 25 foot maximum change in elevation from the river to its highest point.

11-A cont.

Natural drainage is in to the Dolores River.

The mill will be located at the furthermost point away from the river and will be in an area that was disturbed by the previous mining efforts.

The mining process will be accomplished by the use of a hydraulicing unit. The slurry resulting from this mechanical action will be pumped into the mill for processing.

The milling process will consist of a pre-treatment of the ore with chlorine, (calcium hypochlorite) to clean the gold, a filtration process, and then a purification process.

Before leaving the mill, any excess chlorine will be neutralized with sulfur dioxide. The spent ore will then be placed in lined ponds where the water will be collected for reuse. The remaining solids will be placed back in the original environment, graded, and reseeded.

The mill is a self-contained unit. There will be no pollution and no discharge. All liquids will be reclaimed and continuously recycled.

as/2 Steve McNeal

ROADS

To make the project a reality, a reliable all-season road is an absolute necessity. The allignment of the road (see map) was to follow existing mining and exploration roads as far as possible, then construct a new road up the Dolores River canyon to the mine site.

Approximately one mile of new road has been constructed; $\frac{1}{2}$ mile of access road to the site and $\frac{1}{2}$ mile of new road at the site itself.

The $4\frac{1}{2}$ miles of existing roads had to be improved to allow movement of equipment into the area.

Construction was completed by the use of heavy equipment and explosives where needed.

The road down cowskin canton crosses the stream bed of a normally dry wash several times. At two locations we placed 36" by 30' culverts to allow proper drainage of water and to give us the needed grade for the road. Three other locations were stabilized with river rock hauled from the old placer operations.

Drainage ditches were constructed at locations where it was thought necessary.

The BLM felt the road was adequate, except for some of the berms along the grade that needed to be knocked down. This will be completed in the near future.

Due to sparse vegetation, few trees or bushes will need to be removed during mining operations. Tamaracks are the only large plant in the area and will be removed with a front end loader when necessary.

The mill site and other operational features will be located in areas that were previously disturbed by earlier mining operations. A bulldozer was used to fill in pits and level out mounds of dirt and rock.

The bulldozer was also used to level out the trailer park located on the hill southeast of the mill site.

Topsoils are considered to be valuable ore and will be processed in the mill and not stock piled.

All disturbed materials will have the gold and silver removed and then used as back fill for reclamation. There will be no need for stock piling of any materials.

The mill has been designed to be self-contained and will not discharge any toxic material. Before the spent ore leaves the mill it will be tested, neutralized, and the excess water removed and recycled. The remaining solids will then be placed in the original environment as back fill.